

## Freund's adjuvant

(6251-07-6)

## Freund's adjuvant

Valid heading during volumes 126-130 (1997-June 1999) only

See Immunostimulants, adjuvants, Freund's

## FRF 50

See Formaldehyde, polymers, polymer with 1,3-benzenediol and phenol [25986-71-4]

## FRF 50L

See Formaldehyde, polymers, polymer with 1,3-benzenediol and phenol [25986-71-4]

## FRG 8701

See Acetamide, 2-[(2-furanylmethyl)sulfinyl]-N-[3-(3-(1-piperidinylmethyl)phenoxy)propyl]- [108498-50-6]

## FRG 8813

See Acetamide, 2-[(2-furanylmethyl)sulfinyl]-N-[(2Z)-4-[(1-(1-piperidinylmethyl)-2-pyridinyl)oxy]-2-butenyl]-, (+)- [118288-08-7]

## Friability

See also related:

Brittleness  
Deformation (mechanical)  
Fracture (materials)  
Hardness (mechanical)  
Milling (size reduction)

## Friction

See also related:

Abrasion  
Brakes (mechanical)  
Drag  
Dynamics  
Friction materials  
Langevin equation  
Lubrication  
Mechanical loss  
Thermal fatigue  
Tribology  
Wear

## Frictional wear

Valid heading during volumes 126-130 (1997-June 1999) only

See Wear, frictional

## Friction coatings

Valid heading during volumes 126-130 (1997-June 1999) only

See Coating materials, friction

## Friction materials

See also related: Friction

## Friction welding of metals

Valid heading during volumes 127-130 (July 1997-June 1999) only

See Welding of metals, friction

## Fridamycin A

See 2-Anthrabenbutanoic acid, 6-(2,6-dideoxy-β-D-arabino-hexopyranosyl)-9,10-dihydro-β,1,5-trihydroxy-β-methyl-9,10-dioxo-, (βR)- [30270-05-4]

## Fridamycin E

See 2-Anthrabenbutanoic acid, 9,10-dihydro-β,1,5-trihydroxy-β-methyl-9,10-dioxo-, (βR)- [116120-54-8]

## Frideron

See 1H-2-Benzoxacyclotetradecin-1-one, 3,4,5,6,7,8,9,10,11,12-decahydro-7,14,16-trihydroxy-3-methyl-, (3S,7R)- [26538-44-3]

## Fridex

See 1,2-Ethanediol [107-21-1]

## Fridohna

See Ethane, 1,1,2-trichloro-1,2,2-trifluoro- [76-13-1]

## Friedelalactone

See Chryseno[2,1-c]oxepin-3(2H)-one, eicosahydro-5,5a,7b,9a,12,12,13b,15a-octamethyl-, (5R,5aS,7aS,7bR,9aR,13aR,13bS,15aR,15bS)- [29621-75-8]

## Friedelane

See 24,25,26-Trinoroleanane, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [559-73-9]

## Friedelanol

See 24,25,26-Trinoroleanan-3-ol, 5,9,13-trimethyl-, (3α,4β,5β,8α,9β,10α,13α,14β)- [5085-72-3]

## Friedel-Crafts reaction

Alkylation or acylation of aromatic compounds in the presence of Lewis acid catalysts is indexed here

See also related: Friedel-Crafts reaction catalysts

## Friedel-Crafts reaction catalysts

See also related: Friedel-Crafts reaction

## Friedelin

See 24,25,26-Trinoroleanan-3-one, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [559-74-0]

## Friedelinol

See 24,25,26-Trinoroleanan-3-ol, 5,9,13-trimethyl-, (3α,4β,5β,8α,9β,10α,13α,14β)- [5085-72-3]

## Friedel salt

See Aluminate(4-), chlorotrioxo-, calcium (1:2), pentahydrate, (T-4)- [12250-57-6]

## Friedman acid

See Phosphorodiamidic acid, N,N-bis(2-chloroethyl)- [10159-53-2]

## D-C-Friedo-A,B'-A'-dineogammacerane

See 3'H-Cyclopenta[3,4]-19-norpregn-3-ene, tetrahydro-4,8,9,20-tetramethyl-5-(1-methyl-ethyl)-, (3β,4α,5β,5'α)- [53950-99-5]

## D-Friedo-23,24-dinor-4-oxaoleanane

See 1H-Chryseno[2,1-b]pyran, eicosahydro-6a,8a,11,11,12b,14b-hexamethyl-, (4aR,6aS,6bS,8aS,12aR,12bS,14aS,14bR)- [93261-90-6]

## D-Friedogammacerane

See 27-Norgammacerane, 13-methyl-, (13α,14β)- [137366-08-6]

## D-C-Friedogammacerane

See 26-Norgammacerane, 13-methyl-, (8α,13α,14β)- [123542-84-7]

## D-B-Friedo-B-homo-B'-A'-neo-6-oxa-gammacerane

See 1H-Benzobicyclopenta[5,6]naphth[2,1-d]oxepin, eicosahydro-4,4,7b,9a,12b,14a-hexamethyl-10-(1-methylethyl)-, [4aR-(4αα,7αα,7bβ,9αα,10α,12αβ,12bα,14αβ,14bα)]- [67375-54-6]

## D:A-Friedo-B(9a)-homooleanane

See 1H-Benzobicyclopenta[5,6]phenanthrene, docosahydro-3,3,4b,6a,11,11a,13b,15a-octamethyl-, (4aR,4bS,6aS,7aS,11S,11aR,13aS,13bR,15aR)- [76807-95-9]

## D:A-Friedo-D-homooleanane

See 1H-Benzobicyclopenta[5,6]phenanthrene, docosahydro-4,4a,6b,9a,12,12,13b,15a-octamethyl-, (4S,4aR,6aS,6bR,9aS,13aR,13bS,15aS,15bR)- [76794-33-7]

## D:A-Friedo-E-homooleanane

See 1H-Cyclohepta[a]chryseno, docosahydro-4,4a,6b,8a,12,12,13b,15a-octamethyl-, (4S,4aR,6aS,6bR,8aR,13aR,13bS,15aS,15bR)- [71247-77-3]

## D-Friedo-A-homo-4-oxaoleanane

See Chryseno[2,1-c]oxepin, docosahydro-5,5,7a,9a,12,12,13b,15b-octamethyl-, (5aR,7aS,7bS,9aS,13aR,13bS,15aS,15bR)- [93385-51-4]

## D:A-Friedo-A-homo-3-oxaoleanane

See Chryseno[1,2-d]oxepin, docosahydro-5,5a,7b,9a,12,12,13b,15a-octamethyl-, (5R,5aS,7aS,7bR,9aR,13aR,13bS,15aS,15bS)- [56555-12-5]

## D:A-Friedo-A-homo-4-oxaoleanane

See Chryseno[2,1-c]oxepin, docosahydro-5,5a,7b,9a,12,12,13b,15a-octamethyl-, (5R,5aS,7aS,7bR,9aR,13aR,13bS,15aR,15bS)- [58934-55-7]

## D:B-Friedo-B-homo-6-oxaoleanane

See Benzo[b]phenanthro[2,1-d]oxepin, docosahydro-4,4,7b,9a,12,12,13b,15a-octamethyl-, (4aR,7aS,7bR,9aR,13aR,13bS,15aR,15bS)- [70549-98-3]

## E:B-Friedohop-5-en-3β-ol

See A'-Neo-25,26,28-trinorgammacer-5-en-3-ol, 9,13,17-trimethyl-, (3β,8β,9α,10α,13β,14α,17α,18β)- [1615-94-7]

## Friedolabdaturbic acid

See 1-Naphthalenecarboxylic acid, 1,2,3,5,6,7,8,8a-octahydro-5-(3-hydroxy-3-methyl-4-pentenyl)-1,5,6-trimethyl- [107110-07-6]

## D-Friedolupane

See 27-Norlupane, 13-methyl-, (13α,14β)- [79467-27-9]

## D:A-Friedolupane

See 24,25,26-Trinorlupane, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [64415-34-5]

## D:B-Friedolupane

See 25,26-Dinorlupane, 9,13-dimethyl-, (8α,9β,10α,13α,14β)- [52239-65-3]

## D:C-Friedolupane

See 26-Norlupane, 13-methyl-, (8α,13α,14β)- [86118-21-0]

## D:A-Friedo-B'-A'-neogammacerane

See A'-Neo-24,25,26,28-tetranorgammacerane, 5,9,13,17-tetramethyl-, (4β,5β,8α,9β,10α,13α,14β,17α,18β)- [36634-10-3]

## D:B-Friedo-B'-A'-neogammacerane

See A'-Neo-25,26,28-trinorgammacerane, 9,13,17-trimethyl-, (8α,9β,10α,13α,14β,17α,18β)- [36634-09-0]

## D:C-Friedo-B'-A'-neogammacerane

See A'-Neo-26,28-dinorgammacerane, 13,17-dimethyl-, (8α,13α,14β,17α,18β)- [36634-11-4]

## D:B-Friedo-A-neolupane

See 3'H-Cyclopent[3,4]-18-norpregnane, tetrahydro-3,5,8,20-tetramethyl-3'-(1-methylethyl)-, (3β,3'α,4α,5α,13α)- [52539-53-4]

## D:A-Friedo-B'-A'-neo-23-nor-4-oxagammacerane

See 4'H-19-Norpregn-3-eno[3,4-b]pyran, tetrahydro-3,5,8,9,20-pentamethyl-, (3α,4β,5α)- [123542-90-5]

## D-Friedo-A-neooleanane

See A'-Neo-23,24,25,26-tetranorgammacerane, 2,2,5,9-tetramethyl-, (8α,9β,10α)- [75601-72-8]

## D:A-Friedo-A-neooleanane

See Benzo[3,4]pregn-3-ene, hexahydro-3,4',4',5,8-pentamethyl-, (3β,4β,5α)- [110567-48-1]

## D:C-Friedo-A-neooleanane

See A'-Neo-23,24,25,27-tetranorgammacerane, 2,2,5,9-tetramethyl-, (8α,9β,10α,14β)- [35174-51-7]

## D:B-Friedo-B'-A'-neo-3,4-secogammacerane

See 19-Norpregnane, 5,8,9,20-tetramethyl-3-(1-methylethyl)-4-propyl-, (3α,4α,5α)- [123542-89-2]

## D:B-Friedo-B'-A'-neo-5,8-secogammacerane

See 1H-Benz[e]indene, 7-(3,3-dimethylcyclohexyl)-6-ethyldecadecahydro-3a,5a,7,9a-tetramethyl-3-(1-methylethyl)-, [3R-[3a,3aα,5aβ,6β,7a(R\*),9aα,9bβ]]- [67375-52-4]

## D:C-Friedo-B'-A'-neo-19,20-secogammacerane

See Chryseno, 8-[(1R)-1,2-dimethylpropyl]octadecahydro-1,1,4a,6a,7,8,10a-heptamethyl-, (4aR,4bS,6aS,7R,8R,10aR,10bS,12aS)- [133934-95-9]

## D:C-Friedo-A-neoursane

See Benzo[3,4]-18-norpregn-3-ene, hexahydro-3,3',4',5,14,20-hexamethyl-, (3β,3'β,4β,4'α,5α,8α,13α,14β)- [53761-91-4]

## D-Friedo-A(1)-noroleanane

See Benz[3,4]estr-3-ene, hexahydro-3,4',4',5,9,14,17-octamethyl-, (3β,4β,5α,8α,9β,13α,14β)- [93261-91-7]

## D:A-Friedo-A(1)-noroleanane

See Benzo[3,4]androst-3-ene, hexahydro-3,4',4',5,8,17-hexamethyl-, (3β,4β,5α,17β)- [7506-14-1]

## D:C-Friedo-C-noroleanane

See 1H-Dibenzof[a,i]fluorene, eicosahydro-2,2,4a,6a,9,9,12a,13a-octamethyl-, (4aR,6aR,6bS,8aS,12aR,12bS,13aS,13bR)- [59983-94-7]

## D:A-Friedo-23-noroleanano[3,4-c]isosenenazole

See 23,24,25,26-Tetranoroleanano[3,4-c]isosenenazole, 5,9,13-trimethyl-, (5β,8α,9β,10α,13α,14β)- [176086-45-6]

## D:A-Friedo-23-noroleanano[3,4-d][1,2,6]oxa-selenazine

See 23,24,25,26-Tetranoroleanano[3,4-d][1,2,6]oxa-selenazine, 5,9,13-trimethyl-, (5β,8α,9β,10α,13α,14β)- [176086-46-7]

## D:A-Friedo-A(1)-nor-3-oxaoleanane

See Chryseno[1,2-c]furan, eicosahydro-3,3a,5b,7a,10,10,11b,13a-octamethyl-, (3R,3aS,5aS,5bR,7aR,11aR,11bS,13aR,13bS)- [114447-35-7]

## D:A-Friedo-23-nor-4-oxaoleanane

See 1H-Chryseno[2,1-b]pyran, eicosahydro-4a,6b,8a,11,11,12b,14a-heptamethyl-, (4aS,6aS,6bR,8aR,12aR,12bS,14aR,14bS)- [127037-01-8]

## D-Friedo-A(1)-nor-2,3-secooleanane

See Chryseno, octadecahydro-2-(1,1-dimethylethyl)-1,1,4a,6a,9,9,10b-heptamethyl-, (2S,4aR,4bS,6aS,10aR,10bS,12aR)- [123542-88-1]

## D:A-Friedo-A(1)-nor-2,3-secooleanane

See Chryseno, octadecahydro-1,2,4b,6a,9,9,10b,12a-octamethyl-2-(1-methylethyl)-, (1R,2R,4aS,4bR,6aR,10aR,10bS,12aS)- [50601-15-5]

## D-Friedooleanane

See 27-Noroleanane, 13-methyl-, (13α,14β)- [21688-56-2]

## D:A-Friedooleanane

See 24,25,26-Trinoroleanane, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [559-73-9]

## D:B-Friedooleanane

See 25,26-Dinoroleanane, 9,13-dimethyl-, (8α,9β,10α,13α,14β)- [4480-69-7]

## D:C-Friedooleanane

See 26-Noroleanane, 13-methyl-, (8α,13α,14β)- [37697-27-1]

## 1'H-D:A-Friedoolean-2-eno[3,2-b]indole

See 24,25,26-Trinorolean-2-eno[3,2-b]indole, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [53527-44-9]

## D:A-Friedoolean-2-eno[3,2-d]thiazole

See 24,25,26-Trinorolean-2-eno[3,2-d]thiazole, 5,9,13-trimethyl-, (4β,5β,8α,9β,10α,13α,14β)- [53500-28-0]

## D:A-Friedo-3-oxaoleanane

See 2H-Chryseno[2,1-c]pyran, eicosahydro-4,4a,6b,8a,11,11,12b,14a-octamethyl-, (4R,4aS,6aS,6bR,8aR,12aR,12bS,14aR,14bS)- [60513-79-3]

## D:A-Friedo-18,19-secolupane

See Chryseno, octadecahydro-1,4b,6a,8,10a,12a-hexamethyl-8-(4-methylpentyl)-, (1S,4aR,4bS,6aS,8R,10aR,10bS,12aR)- [42040-86-8]

## D:B-Friedo-18,19-secolupane

See Chryseno, octadecahydro-1,1,4b,6a,8,10a-hexamethyl-8-(4-methylpentyl)-, [4aR-(4αα,4bβ,6αα,8α,10αβ,10bα,12αα)]- [39204-76-7]

## D:C-Friedo-18,19-secolupane

See Chryseno, octadecahydro-1,1,4a,6a,8,10a-hexamethyl-8-(4-methylpentyl)-, (4aR,4bS,6aS,8R,10aR,10bS,12aS)- [42040-87-9]

## D-Friedo-2,3-secooleanane

See Chryseno, 2-(1,1-dimethylethyl)-1-ethyl-octadecahydro-1,4a,6a,9,9,10b-hexamethyl-, (1S,2S,4aR,4bS,6aS,10aR,10bS,12aR)- [93279-31-3]

## D-Friedo-3,4-secooleanane

See Chryseno, octadecahydro-1,4a,6a,9,9,10b-hexamethyl-2-(1-methylethyl)-1-propyl-, (1S,2S,4aR,4bS,6aS,10aR,10bS,12aR)- [111141-13-0]

## D-Friedo-21,22-secooleanane

See Chryseno, 7-(2,2-dimethylpropyl)octadecahydro-1,1,4a,6a,8,8,10b-heptamethyl-, (4aS,4bR,6aS,7R,10aS,10bR,12aS)- [57484-01-2]

## D:A-Friedo-2,3-secooleanane

See Chryseno, 1-ethyl-octadecahydro-2,4b,6a,9,9,10b,12a-heptamethyl-2-(1-methylethyl)-, (1R,2R,4aS,4bR,6aR,10aR,10bS,12aS)- [42040-93-7]

## D:A-Friedo-3,4-secooleanane

See Chryseno, 2-ethyl-octadecahydro-2,4b,6a,9,9,10b,12a-heptamethyl-1-propyl-, (1R,2S,4aS,4bR,6aR,10aR,10bS,12aS)- [36489-50-6]

## D:A-Friedo-4,5-secooleanane

See Chryseno, octadecahydro-2,4b,6a,9,9,10b,12a-heptamethyl-1-pentyl-, (1R,2R,4aS,4bR,6aR,10aR,10bS,12aS)- [57739-10-3]

## D:A-Friedo-13,18-secooleanane

See Phenanthrene, tetradecahydro-1,2,4a,8,8a-pentamethyl-1-[2-(1,4,4-trimethylcyclohexyl)ethyl]-, (1S,2R,4aS,4bR,8S,8aR,10aR)- [72160-77-1]

## D:A-Friedo-16,17-secooleanane

See Phenanthrene, 1-ethyltetradecahydro-1,2,4a,8,8a-pentamethyl-2-[(1R,2R)-2,5,5-trimethylcyclohexyl]-, (1R,2S,4aS,4bR,8S,8aR,10aR)- [70702-60-2]

## D:A-Friedo-20,21-secooleanane

See Chryseno, 2-ethyl-octadecahydro-2,4a,6a,7,10b,12a-hexamethyl-1-(2-methylpropyl)-, (1R,2R,4aR,4bS,6aR,7S,10aR,10bS,12aS)- [77828-92-3]

## D:A-Friedo-21,22-secooleanane

See Chryseno, 1-(2,2-dimethylpropyl)octadecahydro-2,2,4a,6a,7,10b,12a-heptamethyl-, (1R,4aR,4bS,6aR,7S,10aR,10bS,12aS)- [72854-02-5]

## D:B-Friedo-3,4-secooleanane

See Chryseno, octadecahydro-4b,6a,9,9,10b,12a-hexamethyl-2-(1-methylethyl)-1-propyl-, (1R,2S,4aS,4bR,6aR,10aR,10bS,12aS)- [36676-17-2]

## D:C-Friedo-A(4),23,24-trinorursane